

Notice of Allowability

Application No.

10/775,769

Examiner

Rakesh K. Dhingra

Applicant(s)

KASZUBA ET AL.

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Examiner's Interview Summary dt 3/29/07.
2. ☒ The allowed claim(s) is/are 1,2,4,5,7-9,11,14-17 and 19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7/19/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Rakesh K. Dhingra

Art Unit: 1763

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Keith P. Taboada on 7/19/07.

The application has been amended as follows:

In the Claims:

1. (Currently Amended) A semiconductor processing chamber comprising:
a chamber body having an aperture formed in a bottom of the chamber body;
a substrate support disposed in the chamber body;
a moveable shaft coupled to the substrate support, the movable shaft extending through the aperture;
a step formed in an inner surface of the aperture [;] and a substantially annular guard ring positioned within the step;
~~the guard ring having a portion that slopes radially inward and upwards into sealing contact with the shaft;~~
wherein the guard ring further comprises:
a base portion having an outer circumference and an inner perimeter, wherein the outer circumference contacts the step and the inner perimeter is adapted for substantially sealing a gap between the shaft and the aperture; and
wherein the inner perimeter is formed substantially as a wedge portion, that slopes radially inwards and upwards into sealing contact with the shaft.

Art Unit: 1763

8. (Currently Amended) The chamber of claim 1, wherein the guard ring further comprises:

a first flange coupled to the base portion and disposed against the shaft, the first flange defining the wedge;

a second flange coupled to the base portion and disposed against the step formed in the inner surface; and

a channel separating the first flange from the second flange.

Claims 12, 13, 18 and 20 are cancelled.

In the Specification

Paragraph 0037, line 7 – “with the lip 350” to be amended to “with the lip 352”, as per Figure 3.

Reasons for Allowance

The following is an examiner’s statement of reasons for allowance:

Claim 1: Prior art (US Patent No.5,508,519 – Bennett et al) do not teach claim limitation “a chamber body having an aperture formed in a bottom of the chamber body;

a substrate support disposed in the chamber body;

a moveable shaft coupled to the substrate support, the movable shaft extending through the aperture;

a step formed in an inner surface of the aperture and a substantially annular guard ring positioned within the step;

wherein the guard ring further comprises:

a base portion having an outer circumference and an inner perimeter, wherein the outer circumference contacts the step and the inner perimeter is adapted for substantially sealing a gap between the shaft and the aperture; and

Art Unit: 1763

wherein the inner perimeter is formed substantially as a wedge portion that slopes radially inwards and upwards into sealing contact with the shaft.

Election/Restrictions

Claims 1, 2, 4, 5, 7 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 8, 9, 11, 14-17 and 19 directed to the non-elected species, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 12, 13, 18 and 20 have NOT been rejoined, since these have been cancelled.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement between species 1-7 as set forth in the Office action mailed on 1/9/06 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Allowable Subject Matter

Claims 1, 2, 4, 5, 7-9, 11, 14-17 and 19 allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1763

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh K. Dhingra whose telephone number is (571)-272-5959. The examiner can normally be reached on 8:30 -6:00 (Monday - Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571)-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rakesh K. Dhingra



Parviz Hassanzadeh
Supervisory Patent Examiner
Art Unit 1763